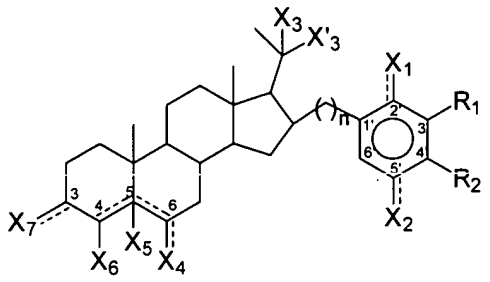
AMENDMENTS TO THE CLAIMS

1. (Currently amended) A compound having the structural formula IB or a pharmaceutically acceptable salt thereof,



formula IB

wherein X_1, X_2, R_1 and R_2 are independently selected from the group ~~comprising~~ consisting of oxo, hydrogen, hydroxyl, oxyalkyl, alkyl, alkenyl, alkynyl, alkyloxy, alkyloxyalkyl, alkylthioalkyl, alkoxycarbonyl, alkylthiocarbonyl, alkanoyl, cycloalkylalkyl, cycloalkylcarbonyl, cycloalkylalkanoyl, cycloalkylthiocarbonyl, cycloalkylalkoxycarbonyl, cycloalkylalkoxythiocarbonyl, cycloalkylthioalkyl, alkylcarbonyloxyalkyl, cycloalkylcarbonyloxyalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylcarbonyl, aryloxycarbonyl, arylthiocarbonyl, aralkoxycarbonyl, arylalkylthiocarbonyl, aryloxyalky, arylthioalkyl, haloalkyl, hydroxyalkyl, aralkanoyl, aroyl, aryloxycarbonylalkyl, aryloxyalkanoyl, carboxyl, alkenylcarbonyl, alkynylcarbonyl, Het^1, Het^1alkyl, Het^1oxyalkyl, Het^1aryl, Het^1aralkyl, Het^1cycloalkyl, Het^1alkoxycarbonyl, Het^1alkylthiocarbonyl, Het^1oxycarbonyl, Het^1thiocarbonyl, Het^1alkanoyl, Het^1aralkanoyl, Het^1aryloxyalkyl, Het^1alkyloxyalkyl, Het^1arylthioalkyl, Het^1aryloxycarbonyl, Het^1aralkoxycarbonyl, Het^1aroyl, Het^1oxyalkylcarbonyl, Het^1alkyloxyalkylcarbonyl, Het^1aryloxyalkylcarbonyl, Het^1carbonyloxyalkyl, Het^1alkylcarbonyloxyalkyl, Het^1aralkylcarbonyloxyalkyl, Het^2alkyl, Het^2oxyalkyl, Het^2alkyloxyalkyl, Het^2aralkyl, Het^2carbonyl, Het^2oxycarbonyl, Het^2thiocarbonyl, Het^2alkanoyl, Het^2alkylthiocarbonyl, Het^2alkoxycarbonyl, Het^2aralkanoyl, Het^2aralkoxycarbonyl, Het^2aryloxycarbonyl, Het^2aroyl, Het^2aryloxyalkyl, Het^2arylthioalkyl, Het^2oxyalkylcarbonyl, Het^2alkyloxyalkylcarbonyl, Het^2aryloxyalkylcarbonyl, Het^2carbonyloxyalkyl, Het^2alkylcarbonyloxyalkyl, Het^2aralkylcarbonyloxyalkyl, cyano, $CR^3{=}NR^4$, $CR^3{=}N(OR^4)$, aminocarbonyl, aminoalkanoyl, aminoalkyl, ~~optionally~~ unsubstituted or substituted by one or more substituents independently selected from the group ~~comprising~~ consisting of alkyl, aralkyl, aryl, Het^1, Het^2, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl,

mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)$_t$, hydroxy, cyano, halogen or amino, ~~optionally~~ unsubstituted, mono- or disubstituted, wherein the substituents are independently selected from the group ~~comprising~~ consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, arylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het^1, Het^2, Het^{1}alkyl, Het^{2}alkyl, Het^{1}amino, Het^{2}amino, Het^{1}alkylamino, Het^{2}alkylamino, Het^{1}thio, Het^{2}thio, Het^{1}alkylthio, Het^{2}alkylthio, Het^{1}oxy and Het^{2}oxy, OR^3, SR^3, $SO_2NR^3R^4$, $SO_2N(OH)R^3$, CN, $CR^3{=}NR^4$, $S(O)R^3$, SO_2R^3, $CR^3{=}N(OR^4)$, N_3, NO_2, NR^3R^4, $N(OH)R^3$, $C(O)R^3$, $C(S)R^3$, CO_2R^3, $C(O)SR^3$, $C(O)NR^3R^4$, $C(S)NR^3R^4$, $C(O)N(OH)R^4$, $C(S)N(OH)R^3$, $NR^3C(O)R^4$, $NR^3C(S)R^4$, $N(OH)C(O)R^4$, $N(OH)C(S)R^3$, $NR^3CO_2R^4$, $NR^3C(O)NR^4R^5$, and $NR^3C(S)NR^4R^5$, $N(OH)CO_2R^3$, $NR^3C(O)SR^4$, $N(OH)C(O)NR^3R^4$, $N(OH)C(S)NR^3R^4$, $NR^3C(O)N(OH)R^4$, $NR^3C(S)N(OH)R^4$, $NR^3SO_2R^4$, $NHSO_2NR^3R^4$, $NR^3SO_2NHR^4$, $P(O)(OR^3)(OR^4)$, wherein t is an integer between 1 and 2 and R^3, R^4 and R^5 are each independently selected from the group ~~comprising~~ consisting of hydrogen, hydroxyl, alkyl, alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino alkylthiocarbonylamino and arylthiocarbonylamino;

wherein X_3 participates together with X_3' ~~to~~in an oxo functional group, or wherein X_3 is selected from the group ~~comprising~~ consisting of hydrogen, hydroxyl, sulfur, oxyalkyl, oxycarbonyl, alkyl, Het^{1}alkyl, alkenyl, alkynyl, aminoalkyl, aminoacyl, alkylcarbonylamino, alkylthiocarbonylamino, Het^1, glycosyl, thio derivatives thereof, amino derivatives thereof, hydroxyl-protected derivatives thereof, alkyloxycarbonyl, ~~optionally~~ unsubstituted or substituted by one or more substituents independently selected from the group ~~comprising~~ consisting of alkyl, aralkyl, aryl, Het^1, Het^2, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl and aminocarbonyl; and X_3' is selected from the group ~~comprising~~ consisting of hydrogen, alkyl, aryl, Het^1, glycosyl, thio derivatives thereof, amino derivatives thereof, hydroxyl-protected derivatives thereof, aralkyl, and ~~optionally~~ unsubstituted or substituted by one or more substituents independently selected from the group ~~comprising~~ consisting of alkyl, aralkyl, aryl, Het^1, Het^2, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)$_t$, hydroxy, cyano, halogen or amino, ~~optionally~~ unsubstituted, mono- or disubstituted, wherein the substituents are independently selected from the group ~~comprising~~ consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, aylaminoalkoxy, aralkylamino,

aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl;

wherein X_4 and X_7 are independently selected from the group ~~comprising~~ consisting of hydrogen, halogen, oxygen, oxo, carbonyl, thiocarbonyl, hydroxyl, alkyl, aryl, Het^1, glycosyl, thio derivatives thereof, amino derivatives thereof, hydroxyl-protected derivatives thereof, Het^1alkyl, Het^1aryl, alkenyl, alkynyl, hydroxyalkyl, hydroxycarbonyl, hydroxycarbonylalkyl, hydroxycarbonylaryl, hydroxycarbonyloxyalkyl and hydroxycarbonyloxyaryl; aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkyl$S(=O)_t$, hydroxy, aminoalkyl, aminoaryl, cyano, halogen or amino, unsubstituted, ~~optionally~~ mono- or disubstituted, wherein the substituents are independently selected from the group ~~comprising~~ consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, aylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, Het^1, Het^2, alkyloxycarbonyl, carboxyl, aminocarbonyl, cycloalkyl and cycloalkylalkyl;

wherein X_5 participates ~~to~~in a double bond between the carbon atoms in position 4 and 5 or between carbon atoms in position 5 and 6, and X_6 is independently selected from the group ~~comprising~~ consisting of hydrogen, hydroxyl and hydroxyalkyl, or wherein X_5 and X_6 are independently selected from the group ~~comprising~~ consisting of halogen, hydrogen, hydroxyl, hydroxyalkyl, aminoalkyl, aminoaryl, ~~optionally~~ unsubstituted or substituted by one or more substituents independently selected from the group ~~comprising~~ consisting of alkyl, aralkyl, aryl, Het^1, Het^2, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, and

wherein n is an integer between 0 and 10,

provided that when X_6 and X_4 are H, when X_5 participates ~~to~~in a double bond between the carbon atoms in position 5 and 6, when X_3 participates together with X_3' ~~to~~in an oxo functional group, when n is zero and X_1, X_2, R_1 and R_2 are H, X_7 is not hydroxyl.

2. (Currently amended) ~~A~~ The compound according to claim 1,

wherein X_1, X_2, R_1 and R_2 are independently selected from the group ~~comprising~~ consisting of oxo, hydrogen, hydroxyl, oxyalkyl, alkyl, alkenyl, alkynyl, alkyloxy, alkyloxyalkyl, alkylthioalkyl, alkoxycarbonyl, alkylthiocarbonyl, alkanoyl, cycloalkylalkyl, cycloalkylcarbonyl,

cycloalkylalkanoyl, cycloalkylthiocarbonyl, cycloalkylalkoxycarbonyl, cycloalkylalkoxythiocarbonyl, cycloalkylthioalkyl, alkylcarbonyloxyalkyl, cycloalkylcarbonyloxyalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylcarbonyl, aryloxycarbonyl, arylthiocarbonyl, aralkoxycarbonyl, arylalkylthiocarbonyl, aryloxyalky, arylthioalkyl, haloalkyl, hydroxyalkyl, aralkanoyl, aroyl, aryloxycarbonylalkyl, aryloxyalkanoyl, carboxyl, alkenylcarbonyl, alkynylcarbonyl, Het^1, Het^1alkyl, Het^1oxyalkyl, Het^1aryl, Het^1aralkyl, Het^1cycloalkyl, Het^1alkoxycarbonyl, Het^1alkylthiocarbonyl, Het^1oxycarbonyl, Het^1thiocarbonyl, Het^1alkanoyl, Het^1aralkanoyl, Het^1aryloxyalkyl, Het^1alkyloxyalkyl, Het^1arylthioalkyl, Het^1aryloxycarbonyl, Het^1aralkoxycarbonyl, Het^1aroyl, Het^1oxyalkylcarbonyl, Het^1alkyloxyalkylcarbonyl, Het^1aryloxyalkylcarbonyl, Het^1carbonyloxyalkyl, Het^1alkylcarbonyloxyalkyl, Het^1aralkylcarbonyloxyalkyl, Het^2alkyl, Het^2oxyalkyl, Het^2alkyloxyalkyl, Het^2aralkyl, Het^2carbonyl, Het^2oxycarbonyl, Het^2thiocarbonyl, Het^2alkanoyl, Het^2alkylthiocarbonyl, Het^2alkoxycarbonyl, Het^2aralkanoyl, Het^2aralkoxycarbonyl, Het^2aryloxycarbonyl, Het^2aroyl, Het^2aryloxyalkyl, Het^2arylthioalkyl, Het^2oxyalkylcarbonyl, Het^2alkyloxyalkylcarbonyl, Het^2aryloxyalkylcarbonyl, Het^2carbonyloxyalkyl, Het^2alkylcarbonyloxyalkyl, Het^2aralkylcarbonyloxyalkyl, cyano, $CR^3{=}NR^4$, $CR^3{=}N(OR^4)$, aminocarbonyl, aminoalkanoyl, aminoalkyl, ~~optionally~~ unsubstituted or substituted by one or more substituents independently selected from the group ~~comprising~~ consisting of alkyl, aralkyl, aryl, Het^1, Het^2, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkyl$S(=O)_t$, hydroxy, cyano, halogen or amino, ~~optionally~~ unsubstituted, mono- or disubstituted, wherein the substituents are independently selected from the group ~~comprising~~ consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, aylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl, cycloalkylalkyl, Het^1, Het^2, Het^1alkyl, Het^2alkyl, Het^1amino, Het^2amino, Het^1alkylamino, Het^2alkylamino, Het^1thio, Het^2thio, Het^1alkylthio, Het^2alkylthio, Het^1oxy ~~and~~, Het^2oxy, OR^3, SR^3, $SO_2NR^3R^4$, $SO_2N(OH)R^3$, CN, $CR^3{=}NR^4$, $S(O)R^3$, SO_2R^3, $CR^3{=}N(OR^4)$, N_3, NO_2, NR^3R^4, $N(OH)R^3$, $C(O)R^3$, $C(S)R^3$, CO_2R^3, $C(O)SR^3$, $C(O)NR^3R^4$, $C(S)NR^3R^4$, $C(O)N(OH)R^4$, $C(S)N(OH)R^3$, $NR^3C(O)R^4$, $NR^3C(S)R^4$, $N(OH)C(O)R^4$, $N(OH)C(S)R^3$, $NR^3CO_2R^4$, $NR^3C(O)NR^4R^5$, ~~and~~ $NR^3C(S)NR^4R^5$, $N(OH)CO_2R^3$, $NR^3C(O)SR^4$, $N(OH)C(O)NR^3R^4$, $N(OH)C(S)NR^3R^4$, $NR^3C(O)N(OH)R^4$, $NR^3C(S)N(OH)R^4$, $NR^3SO_2R^4$, $NHSO_2NR^3R^4$, $NR^3SO_2NHR^4$, $P(O)(OR^3)(OR^4)$, wherein t is an integer between 1 and 2 and R^3, R^4 and R^5 are each independently selected from the group ~~comprising~~ consisting of hydrogen, hydroxyl, alkyl,

alkenyl, alkynyl, aminoalkyl, aminoaryl, alkylcarbonylamino, arylcarbonylamino alkylthiocarbonylamino and arylthiocarbonylamino;

wherein X_3 participates together with X_3' ~~to~~ in an oxo functional group, or wherein X_3 is selected from the group ~~comprising~~ consisting of hydrogen, hydroxyl, sulfur, oxyalkyl, oxycarbonyl, alkyl, Het^{1}alkyl, alkenyl, alkynyl, aminoalkyl, aminoacyl, alkylcarbonylamino, alkylthiocarbonylamino, Het^1, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminarabiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, gentianosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-amino-1,3-cyclohexanediol, L or D isomers thereof, α or β form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate derivatives thereof, amino derivatives thereof, thio derivatives thereof, di-, tri-, oligo- and polysaccharide thereof, alkyloxycarbonyl, ~~optionally~~ unsubstituted or substituted by one or more substituents independently selected from the group ~~comprising~~ consisting of alkyl, aralkyl, aryl, Het^1, Het^2, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl and aminocarbonyl; and X_3' is selected from the group ~~comprising~~ consisting of hydrogen, alkyl, aryl, Het^1, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminarabiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, gentianosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-amino-1,3-cyclohexanediol, L or D isomers thereof, α or β form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate derivatives thereof, amino derivatives thereof, thio derivatives thereof, di-, tri-, oligo- and polysaccharide thereof, aralkyl, and ~~optionally~~ unsubstituted or substituted by one or more substituents independently selected from the group ~~comprising~~ consisting of alkyl, aralkyl, aryl, Het^1, Het^2, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or

di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)$_t$, hydroxy, cyano, halogen or amino, ~~optionally~~ unsubstituted, mono- or disubstituted, wherein the substituents are independently selected from the group ~~comprising~~ consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, aylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, cycloalkyl and cycloalkylalkyl;

wherein X_4 and X_7 are independently selected from the group ~~comprising~~ consisting of hydrogen, oxygen, halogen, oxo, carbonyl, thiocarbonyl, hydroxyl, alkyl, aryl, Het^1, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminarabiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, gentianosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-amino-1,3-cyclohexanediol, L or D isomers thereof, α or β form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate derivatives thereof, amino derivatives thereof, thio derivatives thereof, di-, tri-, oligo- and polysaccharide thereof; Het^{1}alkyl, Het^{1}aryl, alkenyl, alkynyl, hydroxyalkyl, hydroxycarbonyl, hydroxycarbonylalkyl, hydroxycarbonylaryl, hydroxycarbonyloxyalkyl, and hydroxycarbonyloxyaryl; aminocarbonyl, mono- or di(alkyl)aminocarbonyl, aminosulfonyl, alkylS(=O)$_t$, hydroxy, aminoalkyl, aminoaryl, cyano, halogen or amino, ~~optionally~~ unsubstituted, mono- or disubstituted wherein the substituents are independently selected from the group ~~comprising~~ consisting of alkyl, aryl, aralkyl, aryloxy, arylamino, arylthio, aryloxyalkyl, arylaminoalkyl, aralkoxy, alkylthio, alkoxy, aryloxyalkoxy, aylaminoalkoxy, aralkylamino, aryloxyalkylamino, arylaminoalkylamino, arylthioalkoxy, arylthioalkylamino, aralkylthio, aryloxyalkylthio, arylaminoalkylthio, arylthioalkylthio, alkylamino, Het^1, Het^2, alkyloxycarbonyl, carboxyl, aminocarbonyl, cycloalkyl and cycloalkylalkyl;

wherein X_5 participates ~~to~~in a double bond between the carbon atoms in position 4 and 5 or between carbon atoms in positions 5 and 6, and X_6 is independently selected from the group ~~comprising~~ consisting of hydrogen, hydroxyl and hydroxyalkyl, or

wherein X_5 and X_6 are independently selected from the group ~~comprising~~ consisting of halogen, hydrogen, hydroxyl, hydroxyalkyl, aminoalkyl, aminoaryl, ~~optionally~~ unsubstituted or substituted by one or more substituents independently selected from the group ~~comprising~~ consisting of alkyl, aralkyl, aryl, Het^1, Het^2, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, and

wherein n is an integer between 0 and 10.

3. (Currently amended) ~~A~~ The compound according to claim 1 ~~or 2~~,

wherein X_1, X_2, R_1 and R_2 ~~is~~ are selected from the group ~~comprising~~ consisting of hydrogen, hydroxyl, oxyalkyl, oxo, alkyl, alkenyl, alkynyl, alkyloxy, alkyloxyalkyl, alkylthioalkyl, alkoxycarbonyl, alkylthiocarbonyl, alkanoyl, cycloalkylalkyl, cycloalkylcarbonyl, cycloalkylalkanoyl, cycloalkylthiocarbonyl, cycloalkylalkoxycarbonyl, cycloalkylalkoxythiocarbonyl, cycloalkylthioalkyl, alkylcarbonyloxyalkyl, cycloalkylcarbonyloxyalkyl, silyloxyalkyl, aralkyl, arylalkenyl, arylcarbonyl, aryloxycarbonyl, arylthiocarbonyl, aralkoxycarbonyl, arylalkylthiocarbonyl, aryloxyalky, arylthioalkyl, haloalkyl, hydroxyalkyl, aralkanoyl, aroyl, aryloxycarbonylalkyl, aryloxyalkanoyl, carboxyl, alkenylcarbonyl and alkynylcarbonyl;

wherein X_3 participates together with X_3' ~~to~~in an oxo functional group, or wherein X_3 is selected from the group ~~comprising~~ consisting of hydrogen, hydroxyl, sulfur, oxyalkyl, oxycarbonyl alkyl, Het^1alkyl, alkenyl, alkynyl, aminoalkyl, aminoacyl, alkylcarbonylamino, alkylthiocarbonylamino, Het^1, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminarabiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, gentianosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-amino-1,3-cyclohexanediol, L or D isomers thereof, α or β form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate derivatives thereof, amino derivatives thereof, thio derivatives thereof, disaccharide thereof, trisaccharide thereof, oligosaccharide and polysaccharide thereof, alkyloxycarbonyl ~~optionally~~ unsubstituted

or substituted by one or more substituents independently selected from the group ~~comprising~~ consisting of alkyl, aralkyl, aryl, Het^1, Het^2, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl and aminocarbonyl; and X_3 is selected from the group ~~comprising~~ consisting of hydrogen, alkyl, aryl, aralkyl, Het^1, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminarabiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, gentianosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-amino-1,3-cyclohexanediol, L or D isomers thereof, α or β form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate derivatives thereof, amino derivatives thereof, thio derivatives thereof, disaccharide thereof, trisaccharide thereof, oligosaccharide and polysaccharide thereof;

wherein X_4 and X_7 are independently selected from the group ~~comprising~~ consisting of hydrogen, oxygen, oxo, carbonyl, thiocarbonyl, hydroxyl, alkyl, aryl, Het^1, Het^1alkyl, Het^1aryl, alkenyl, alkynyl, hydroxyalkyl, hydroxycarbonyl, hydroxycarbonylalkyl, hydroxycarbonylaryl, hydroxycarbonyloxyalkyl, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, xylofuranosyl, lyxosyl, talosyl, psicosyl, idosyl, gulosyl, altrosyl, allosyl, mannoheptulosyl, sedoheptulosyl, abequosyl, isomaltosyl, kojibiosyl, laminarabiosyl, nigerosyl, primeverosyl, rutinosyl, tyvelosyl, maltosyl, lactosyl, sucrosyl, cellobiosyl, trehalosyl, gentiobiosyl, melibiosyl, turanosyl, sophorosyl, isosucrosyl, raffinosyl, gentianosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-mannosyl, 2-amino-1,3-cyclohexanediol, L or D isomers thereof, α or β form thereof, pyranose or furanose form thereof, combinations thereof, deoxy derivatives thereof, hydroxyl-protected acetate derivatives thereof, amino derivatives thereof, thio derivatives thereof, disaccharide thereof, trisaccharide thereof, oligosaccharide and polysaccharide thereof;

wherein X_5 participates ~~to~~in a double bond between the carbon atoms in position 4 and 5 or between carbon atoms in positions 5 and 6, and X_6 is independently selected from the group

~~comprising~~ consisting of hydrogen, hydroxyl, and hydroxyalkyl, or wherein X_5 and X_6 are independently selected from the group ~~comprising~~ consisting of hydrogen, hydroxyl, hydroxyalkyl, aminoalkyl, aminoaryl, ~~optionally~~ unsubstituted or substituted by one or more substituents independently selected from the group ~~comprising~~ consisting of alkyl, aralkyl, aryl, Het^1, Het^2, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl, aminocarbonyl, and

wherein n is an integer between 0 and 5.

4. (Currently amended) ~~A~~ The compound according to ~~any of claims 1 to 3~~claim 1,

wherein X_1, X_2, R_1 and R_2 ~~is~~ are selected from the group ~~comprising~~ consisting of hydrogen, hydroxyl, alkyloxy, oxo and oxyalkyl,

wherein X_3 participates together with X_3' ~~to~~in an oxo functional group, or wherein X_3 is selected from the group ~~comprising~~ consisting of hydrogen, hydroxyl, oxyalkyl, oxycarbonyl, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-mannosyl, L or D isomers thereof, α or β form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate derivatives thereof, amino derivatives thereof, thio derivatives thereof, disaccharide thereof, trisaccharide thereof, oligosaccharide and polysaccharide thereof; and X'_3 is selected from the group ~~comprising~~ consisting of alkyl, aryl and aralkyl, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-mannosyl, L or D isomers thereof, α or β form thereof, pyranose or furanose form thereof, combinations thereof, deoxy derivatives thereof, hydroxyl-protected acetate derivatives thereof, amino derivatives thereof, thio derivatives thereof, disaccharide thereof, trisaccharide thereof, oligosaccharide and polysaccharide thereof;

wherein X_4 and X_7 are independently selected from the group ~~comprising~~ consisting of hydrogen, oxygen, oxo, hydroxyl, glucosyl, fructosyl, galactosyl, mannosyl, ribosyl, ribulosyl, xylulosyl, erythrosyl, erythrulosyl, rhamnosyl, threosyl, sorbosyl, psicosyl, tagatosyl, fucosyl, arabinosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy

galactosyl, 2-acetamido-2-deoxy-galactosyl, 2-amino-2-deoxy mannosyl, 2-acetamido-2-deoxy-mannosyl, L or D isomers thereof, α or β form thereof, pyranose or furanose form thereof, combination thereof, deoxy derivatives thereof, hydroxyl-protected acetate derivatives thereof, amino derivatives thereof, thio derivatives thereof, disaccharide thereof, trisaccharide thereof, oligosaccharide and polysaccharide thereof;

wherein X_5 and X_6 are hydrogen or wherein X_5 participates ~~to~~in a double bond between the carbon atoms in position 4 and 5, and X_6 is hydrogen, and

wherein n is an integer between 0 and 2.

5. (Currently amended) ~~A~~ The compound according to ~~any of claims 1 to 4~~claim 1,

wherein X_1, X_2, X_3, X_3', X_6, X_7, R_1, R_2 and n are selected from the group indicated in ~~claims 1 to 3~~claim 1; and

wherein X_4 is equal to X_5 and is selected from the group ~~comprising~~ consisting of halogen, aminoalkyl, aminoaryl, ~~optionally~~ unsubstituted or substituted by one or more substituents independently selected from the group ~~comprising~~ consisting of alkyl, aralkyl, aryl, Het^1, Het^2, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl and aminocarbonyl, or wherein X_5 participates ~~to~~in a double bond between the carbon atoms in position 5 and 6, and X_4 is independently selected from the group ~~comprising~~ consisting of hydrogen, aminoalkyl, aminoaryl, ~~optionally~~ unsubstituted or substituted by one or more substituents independently selected from the group ~~comprising~~ consisting of alkyl, aralkyl, aryl, Het^1, Het^2, cycloalkyl, alkyloxy, alkyloxycarbonyl, carboxyl and aminocarbonyl.

6. (Currently amended) ~~A~~ The compound according to ~~any of claims 1 to 4~~Claim 1, wherein X_1 and X_2 are –OMe, wherein R_1 and R_2 are –H, wherein X_4 is hydrogen, wherein X_3 participates together with X_3' ~~to~~in an oxo functional group, wherein X_5 participates ~~to~~in a double bond between the carbon atoms in position 4 and 5, wherein X_6 is hydrogen, wherein X_7 is hydroxyl, glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, cellobiosyl, gentiobiosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, disaccharide or trisaccharide thereof; and wherein n is 0.

7. (Currently amended) ~~A~~ The compound according to ~~any of claims 1 to 4~~claim 1, wherein X_1 and X_2 are –OMe, wherein R_1 and R_2 are –H, wherein X_3 is hydrogen, hydroxyl, oxyalkyl or

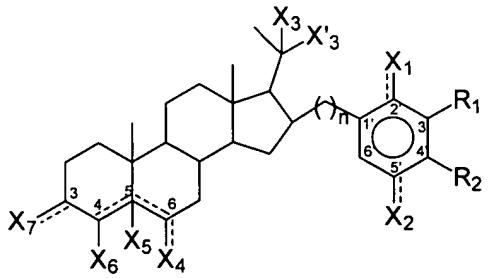
oxycarbonyl, wherein X_3' is glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, cellobiosyl, gentiobiosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, a disaccharide or a trisaccharide thereof, wherein X_4 is hydrogen, wherein X_5 participates ~~to~~ in a double bond between the carbon atoms in position 5 and 6, wherein X_6 is –H, wherein X_7 is hydrogen, oxygen, hydroxyl or oxo, and wherein n is 0.

8. (Currently amended) ~~A~~ The compound according to ~~any of claims 1 to 4~~claim 1, wherein X_1 and X_2 are –OMe, wherein R_1 and R_2 are –H, wherein X_3 is glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, cellobiosyl, gentiobiosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, a disaccharide or a trisaccharide thereof, wherein X_3' is hydrogen, alkyl or aralkyl, wherein X_4 is hydrogen, wherein X_5 participates ~~to~~ in a double bond between the carbon atoms in position 5 and 6, wherein X_6 is –H, wherein X_7 is hydrogen, oxygen, hydroxyl or oxo, and wherein n is 0.

9. (Currently amended) ~~A~~ The compound according to ~~any of claims 1 to 4~~claim 1, wherein X_1 and X_2 are –OMe, wherein R_1 and R_2 are –H, wherein X_3 participates together with X_3' ~~to~~in an oxo functional group, wherein X_4 is hydroxyl, glucosyl, fructosyl, galactosyl, mannosyl, fucosyl, cellobiosyl, gentiobiosyl, 2-amino-2-deoxy glucosyl, 2-acetamido-2-deoxy-glucosyl, 2-amino-2-deoxy galactosyl, 2-acetamido-2-deoxy-galactosyl, a disaccharide or a trisaccharide thereof, wherein X_5 participates ~~to~~ in a double bond between the carbon atoms in position 5 and 6, wherein X_6 is –H, wherein X_7 is hydrogen, oxygen, hydroxyl or oxo, and wherein n is 0.

10. (Currently amended) ~~Compound~~ A compound of formula IB or a pharmaceutically acceptable salt thereof, wherein X_1, X_2, X_3, X_3', X_4, X_5, X_6, X_7, R_1, R_2 and n are selected as indicated in Table A or Table B.

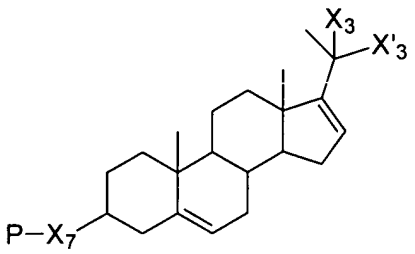
11. ~~Method~~ A method for synthesizing a compound having the structural formula IB



formula IB

wherein X_1, X_2, X_3, X_4, X_5, X_6, X_7, R_1, R_2 and n are selected from the group as indicated in ~~any of claims 1 to 10~~claim 1, said method comprising the steps of

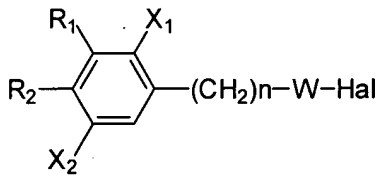
a) providing a starting material having the structural formula IV,



formula IV

wherein X_3, X_3' and X_7 are selected from the group as indicated in ~~any of claims 1 to 10~~claim 1, and wherein P is a protecting group,

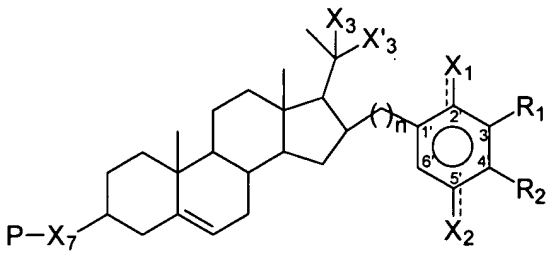
b) effecting reaction between the compound of step a) with an organometallic compound having the structural formula V



formula V

wherein X_1, X_2, R_1, R_2 and n are selected from the group as indicated in ~~any of claims 1 to 10~~claim 1, wherein W is a metal or a combination of metals and wherein Hal is a halogen atom,

to result in an intermediate having the structural formula III'B



formula III'B

wherein X_1, X_2, X_3, X_3', X_7, R_1, R_2 and n are selected from the group as indicated in ~~any of claims 1 to 10~~claim 1, and wherein p is a protecting group,

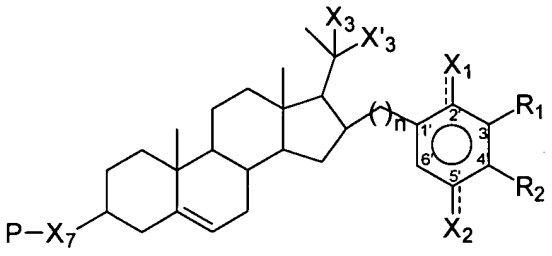
c) effecting reaction between the compound of step b) with an organometallic compound having the structural formula VI

Hal-W-X'_3

formula VI

wherein X'_3 is selected from the group as indicated in ~~any of claims 1 to 10~~claim 1, wherein W is a metal or a combination of metals, and wherein Hal is a halogen atom,

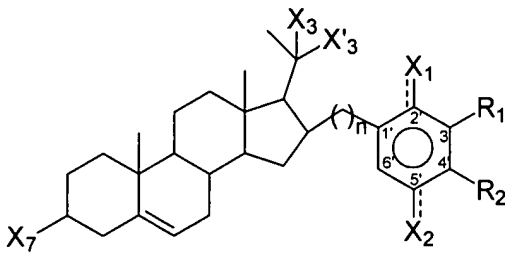
to result in an intermediate having the structural formula IIIB



formula IIIB

wherein X_1, X_2, X_3, X_3', X_7, R_1, R_2 and n are selected from the group as indicated in ~~any of claims 1 to 10~~claim 1, wherein P is a protecting group,

d) deprotecting the X_7 group of the compound obtained in step c) to form ~~an~~ a compound having the structural formula IIB



formula II B

wherein X_1, X_2, X_3, X_3', X_7, R_1, R_2 and n are selected from the group as indicated in ~~any of claims 1 to 10~~claim 1, and

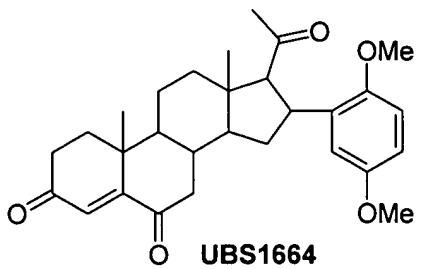
e) oxidizing by reaction with a suitable oxidizing agent or agents to from a compound of formula IB or

e) coupling an O-protected glycosyl or non-protected glycosyl to form a compound of formula IIB wherein X_1, X_2, X_3, X'_3, X_7, R_1, R_2 and n are selected from the group as indicated in ~~any of claims 1 to 10~~claim 1 and X_7 is an O-protected glycosyl or a non-protected glycosyl, and

f) deprotecting the O-protected groups of glycosyl to form a compound of formula IB wherein X_1, X_2, X_3, X'_3, X_4, X_5, X_6, R_1, R_2 and n are selected from the group as indicated in ~~any of claims 1 to 10~~claim 1, and X_7 is a glycosyl, thio derivatives thereof, amino derivatives thereof, or hydroxyl-protected derivatives thereof.

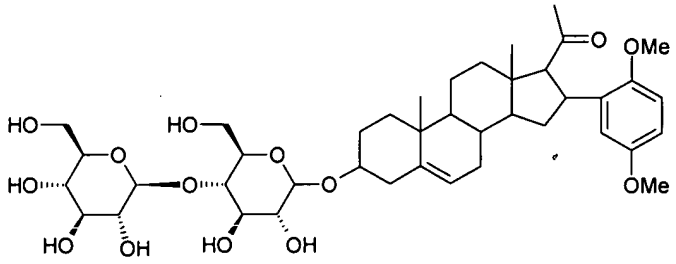
12. (Original) A compound obtainable by any of the steps according to the method of claim 11.

13. (Original) A compound designated as compound UBS1664



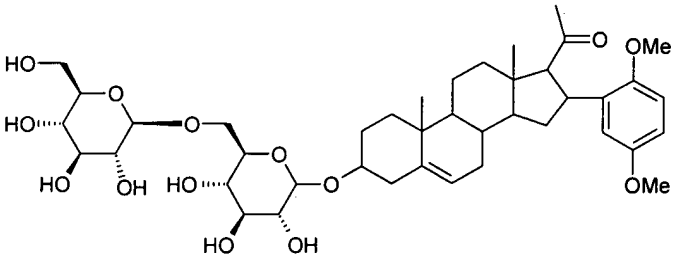
UBS1664

14. (Original) A compound designated as compound UBS3327.



UBS3327

15. (Original) A compound designated as compound UBS3328.



UBS3328

16. (Cancelled)

17. (Cancelled)

18. (Currently amended) A pharmaceutical composition comprising a pharmaceutically acceptable excipient and a therapeutically effective amount of a compound according to ~~any of claims 1 to 10 and 12 to 15~~Claim 1.

19. (Cancelled)

20. (Currently amended) ~~Method~~ A method of treating cancer comprising administrating to an individual in need of such treatment a pharmaceutical composition according to claim 18.

21. (New) A pharmaceutical composition comprising a pharmaceutically acceptable excipient and a therapeutically effective amount of a compound prepared by the method of Claim 12.

22. (New) A method of treating cancer comprising administrating to an individual in need of such treatment a pharmaceutical composition according to claim 21.